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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,670	10/05/2005	Christoph Gieseke	6195-0002WOUS	7233

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MCCORMICK, PAULDING & HUBER LLP
CITY PLACE II
185 ASYLUM STREET
HARTFORD, CT 06103

EXAMINER	
DONDERO, WILLIAM E	

ART UNIT	PAPER NUMBER
3654	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,670	GIESEKE, CHRISTOPH	
	Examiner	Art Unit	
	William E. Dondero	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 October 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/05/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to because the lead line for reference character 16 should point to the axle not the axis. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 22 is objected to because of the following informalities: the word "collectors" should be changed to - -collector brushes- - to keep consistency between the Specification and Claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 22 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Specification lacks description in such a way as to enable one skill in the art to which it pertains, or with which it is most nearly connected, to use the slip ring unit because there is no description in the specification of what the slip ring unit does and how to use the slip ring unit to achieve the intended function.

Claim Rejections - 35 USC § 103

12/4/07.

Claims 15-22, 27, 28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mobes (EP-0802601). Regarding Claim 15, Mobes discloses a construction kit for a spring-driven cable drum, comprising a pre-assembled drum core 2,4 having a housing 2 which forms a winding surface (the outer surface of 2) for the cable and which contains at least one spiral spring 9 and at least one spring anchor hub 8, the pre-assembled drum core having an axle channel (defined by the inner surface of 2) passing right through it with no axle, and the spring anchor hub being held in a substantially axial way within said axle channel by the spiral spring (the spring must inherently connect to the spring anchor hub in order to transfer

rotation from the spring to the shaft causing rotation of the drum); and a separate axle (axle around axis 7 which is separate from the spring anchor hub, spring, flange 3, flange 10, and spring nut 8) which can be (is capable of being) axially inserted into the axle channel from either end of the pre-assembled drum core, wherein insertion of the axle into the axle channel establishes a form-fit rotary coupling between the spring anchor hub and the separate axle (Figures 1-4 and Translation).

If in the alternative, Mobes does not claim a separate axle, it is notoriously old and well known in the art at the time of the invention to make axles separable from the winding mount. It would have been obvious to one of ordinary skill in the art at the time of the invention to use an axle that is separable from the winding mount to allow the axle to be removed and replaced after it has worn out.

Regarding Claims 16-17, Mobes is silent about the form-fit rotary coupling between the spring anchor hub and the axle being provided by a cylindrical key which is housed with a loose fit in a longitudinal bore provided in the spring anchor hub; and the axle is provided with a longitudinal cylindrical key groove. However, key and keyways (or grooves) are notoriously old and well known structures for allowing connection between of one rotating device to another device to drive the other device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a key in a keyway on the spring anchor hub and axle to drive drum rotation.

Regarding Claim 18, Mobes discloses the pre-assembled drum core is equipped with one ball bearing (between the support structure of flange 3 and the flange 10), forming one exit hole of the axle channel in the drum core. However, Mobes is silent

about a second ball bearing of equal size forming the other exit hole of the axle channel in the drum core (Figures 1-4 and Translation). However, it is notoriously old and well known to put a ball bearing at each end of a shaft in a device which rotates. It would have been obvious to one of ordinary skill in the art at the time of the invention to duplicate the ball bearing, at flange 3, with one at flange 4 to ensure the axle does not bind.

Regarding Claim 19, Mobes discloses a fixing flange 10 which can be fixed to one end of the axle and has a cylindrical extension dimensioned so as to form with the inner ring of the two ball bearings a sliding fit (Figures 1-4 and Translation).

Regarding Claim 20-21, Mobes is silent about a bush which is inserted into the inner ring of the opposite ball bearings and is dimensioned so as to form a sliding fit with the latter; and a locking means to axially lock the bush on the axle. However, it is notoriously old and well known to use bush between two rotating surfaces to reduce friction damage to either part and a locking means to keep the bush in position. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a bush and locking mechanism between the axle and bearing of Mobes to prevent frictional wear on the bearing and shaft.

Regarding Claim 22, Mobes discloses a slip ring unit 5 including a fixed slip ring stack 6 clamped to the second end of the axle; a slip ring unit housing with collector brushes; wherein the pre-assembled drum core is provided on both sides with means for attachment (screws shown but not numbered) for the slip ring unit housing, so that

the slip ring unit can be mounted on either side of the pre-assembled drum core depending on the desired direction of unwinding.

Regarding Claim 27, Mobes discloses the housing of the pre-assembled drum core is a cylindrical body having a shell that directly forms a winding surface for the cable (Figures 1-4 and Translation). Regarding Claim 28, Mobes discloses a set of round plates 3,4, one of the round plates being attached to each side of the pre-assembled drum core (Figures 1-4 and Translation).

Claims 23-25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mobes (EP-0802601) as applied to claims 15-22 above, and further in view of Earll (US-1941880). Mobes discloses a first spiral spring 9; and a first spring anchor hub 8, which is held axially in the axle channel by the other end of the first spiral spring (Figures 1-4 and Translation). Mobes is silent about a first spring cassette, a second spring unit, a second spring cassette, a second spiral spring, a second spring anchor hub, the second spring being held in the axle channel by the second spring, a form fit rotary coupling between the axle and the second spring anchor hub, and the two cassettes being fixed in a rotation transmitting way to the housing of the drum core by a pin so that the first and second springs are coupled in parallel. However, Earll discloses a first and second spring cassettes 16 containing first and second springs 26/27,28/29, wherein an outer end of the first and second spiral springs are respectively seated on the first and second spring cassette respectively, and a pin (shown between the cassettes 16 and the flange 22) fixing the spring cassettes in a rotation transmitting way to the housing of the drum core with the springs coupled in parallel (Figures 1-4). It would have been obvious to

one of ordinary skill in the art at the time of the invention to add another spring, spring anchor hub, and put both spring/hub systems in a spring cassette as taught by Earll to add more power to the spring and protect the springs from dust and dirt that may collect on the device.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mobes (EP-0802601) in view of Earll (US-1941880) as applied to claims 23-25 above, and further in view of Bottrill et al. (US-4123013). Mobes in view of Earll is silent about the second anchor hub being fixed in rotation transmitting way to the first spring cassette; insertion of the axle forming a form fit rotary coupling with the first spring anchor hub and the axle but not the second spring anchor hub and the axle; and the second spring cassette being fixed in a rotation transmitting way to the housing of the drum core, but not the first spring cassette so the springs are coupled in series. However, Bottrill et al. discloses springs in a reeling device coupled in parallel and series (Abstract and Figures 1-23). It would have been obvious to one of ordinary skill in the art to couple the springs of Mobes in view of Earll in series by the notoriously old and well known way of coupling one cassette to the other forming a form fit rotary connection between the shaft and one spring and connecting the other to the housing causing one spring to rotate then the other because it causes a longer wind time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William E. Dondero whose telephone number is 571-

272-5590. The examiner can normally be reached on Monday through Friday 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WED/

Peter M. Cuomo
Supervisory Patent Examiner
Technology Center 3600